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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/025,912

12/26/2001

Sung Hee Park

P67475US0

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07/07/2006

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EXAMINER

WOZNIAK, JAMES S

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/025,912	Applicant(s) PARK ET AL.	
	Examiner James S. Wozniak	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the office action from 11/23/2005, the applicant has submitted an amendment, filed 4/26/2006, amending claims 2, 5, and 7, while arguing to traverse the art rejection based on the limitations regarding a color/shape threshold storing means and a color/shape database constructing means (*Amendment, Pages 5-6*). Applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments.

2. In response to amended claims 2, 5, and 7, the examiner has withdrawn the previous objections directed towards a lack of proper antecedent basis.

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Response to Arguments***

4. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to **Claims 1, 5, and 7**, the applicant argues that Okamoto et al (*U.S. Patent: 5,317,508*) fails to disclose or suggest a color/shape threshold storing means (Amendment, Pages 5-7). In response, the examiner points out that it is the combination of the teachings of Okamoto and Mauldin et al (U.S. Patent: 5,664,227) that discloses the aforementioned claim limitation.

Specifically, in regards to the claimed “color/shape threshold storing means,” Okamoto discloses a memory for storing image attributes that includes color and shape information (*Col. 2, Lines 16-18; and Col. 10, Lines 21-42*). As was noted in the prior office action (Page 4), Okamoto does not teach image attributes comprising color histograms and edge information, as is required by the presently claimed invention. Mauldin, however, recites utilizing color histograms and edge information image attributes in a natural language image retrieval system (*Col. 5, Lines 31-67*). Thus, since Okamoto recites a memory for storing image attributes and Mauldin discloses image attributes in the form of color histogram and edge information, the combination of Okamoto and Mauldin teach the claimed “color/shape threshold storing means.”

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (*i.e., color/shape threshold storing means storing a default color palette and a user-defined palette inputted by a user, Amendment, Page 5*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The applicant further argues that Okamoto fails to teach a “color/shape database constructing means for mapping and storing color related words and storing edge information corresponding to shape related words” (*Amendment, Page 6*). In response the examiner notes

that it is the combination of the teachings of Okamoto and Mauldin that discloses the aforementioned claim limitation.

Specifically, in regards to the claimed “color/shape database constructing means,” Okamoto discloses a relationship database that associates text and image attributes (*Col. 2, Lines 10-23*). As was noted above, Okamoto does not teach image attributes comprising color histograms and edge information. Mauldin, however, recites utilizing color histograms and edge information image attributes in a natural language image retrieval system (*Col. 5, Lines 31-67*). Thus, since Okamoto recites a relationship database that associates text and image attributes and Mauldin discloses image attributes in the form of color histogram and edge information, the combination of Okamoto and Mauldin teach the claimed “color/shape database constructing means.”

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references (*Mauldin et al. does not supply the noted deficiencies of Okamoto et al, Amendment, Page 6*).

Finally, the applicant argues that the examiner points to no teaching or suggestion in the prior art to combine the prior art teachings (*Amendment, Page 6*). In response, the examiner points out that the motivation for combining the teachings of Okamoto and Mauldin was noted in the prior office action (*Page 4*) and provided by the Mauldin reference (*benefit of implementing more efficient image comparison and categorization, Col. 5, Lines 60-67*). Thus, since the motivation for combining the prior art has been provided by the prior art itself, the combination of Okamoto and Mauldin under 35 U.S.C. 103(a) is proper.

The dependent claims are argued as further limiting a rejected independent claim  
(*Amendment, Page 7*), and thus, also remain rejected.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-3 and 5-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al (*U.S. Patent: 5,317,508*) in view of Mauldin et al (*U.S. Patent: 5,664,227*).

With respect to **Claims 1 and 5**, Okamoto discloses:

A dictionary storing means for storing a dictionary used for processing a natural language  
(*Col. 6, Lines 30-39; and dictionaries, Fig. 1*);

A means for storing color and shape information (dictionaries, Fig. 1; and Col. 10, Lines 22-42);

A query input means for receiving a query sentence that describes the color and the shape of the image by using a natural language (*Col. 4, Lines 48-67; and Col. 2, Lines 52-61; and Col. 10, Lines 22-42*);

An analyzing means for analyzing the query sentence based on the dictionary information and generating analyzed words (*Col. 4, Lines 48-67*);

A color/shape recognizing means for recognizing whether the analyzed words represent the color or the shape (*Col. 2, Lines 20-23, Col. 5, Lines 5-23; Col. 10, Lines 22-42, and Col. 11, Lines 34-55*);

A color/shape threshold database constructing means for mapping and storing color related words and storing edge information corresponding to shape related words (*Col. 2, Lines 20-23*);

A color/shape threshold retrieving means for retrieving color and the edge information corresponding to the analyzed words from the color/shape threshold storing means (*image retrieving means, Col. 7, Lines 19-23; Fig. 1, and Col. 10, Lines 22-42*);

A retrieving result output means for providing image data searched in the color/shape threshold retrieving means (*image displaying means, Fig. 1*).

Although Okamoto teaches the use of color and shape in image identification and retrieval, Okamoto does not specifically disclose the use of color histograms, however Mauldin recites an image retrieval system utilizing natural language processing (Fig. 1), color histograms, and edge detection (*Col. 5, Lines 31-67*).

Okamoto and Mauldin are analogous art because they are from a similar field of endeavor in image retrieval systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Okamoto with the use of color histograms and edge detection information in an image retrieval system as taught by Mauldin to implement more efficient image comparison and categorization (*Mauldin, Col. 5, Lines 60-67*).

With respect to **Claims 2 and 6**, Okamoto teaches the ability to add color and shape information to a database (Col. 10, Lines 22-42), while Mauldin teaches the use of color histograms and edge detection as applied to claim 1.

With respect to **Claim 3**, Okamoto teaches storing color and shape descriptions in a table (Col. 10, Lines 22-42), while Mauldin teaches the use of color histograms and edge detection as applied to claim 1.

With respect to **Claim 7**, Okamoto in view of Mauldin teaches the system and method for image searching as applied to claims 1 and 5, but does not specifically suggest method storage as a program on a computer readable medium, however the examiner takes official notice that it would have been obvious to one of ordinary skill in the art, at the time of invention, to store the image searching method taught by Okamoto in view of Mauldin as a program on a computer readable medium to increase method compatibility and usability by providing a means for method use with multiple computer systems.

**Claim 8** contains subject matter similar to claim 2, and thus, is rejected for the same reasons.

7. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al (*U.S. Patent: 5,317,508*) in view of Mauldin et al (*U.S. Patent: 5,664,227*), and further in view of Jain et al (*U.S. Patent: 5,983,237*).

With respect to **Claim 4**, Okamoto in view of Mauldin teaches the image query system utilizing color and shape information, as applied to claim 3. Okamoto in view of Mauldin do not



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specifically disclose the use of a qualification relation, however Jain teaches such a relation (*Col. 9, Lines 12-24*).

Okamoto, Mauldin, and Jain are analogous art because they are from a similar field of endeavor in image retrieval systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Okamoto in view of Mauldin with the qualification relations taught by Jain in order to eliminate unnecessary visual senses when constructing a query (*Jain, Col. 9, Lines 18-20*).

### *Conclusion*

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak  
6/15/2006



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